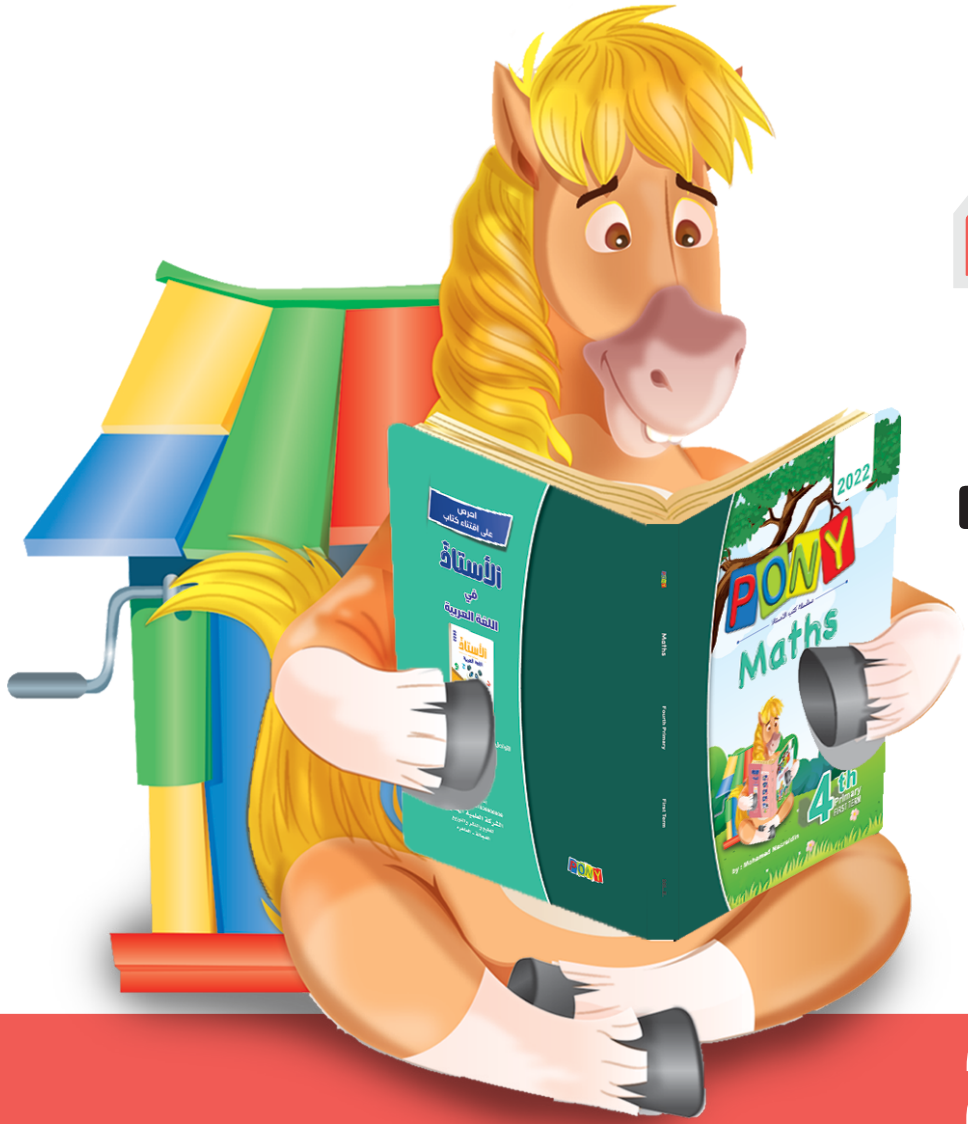
PONY

Maths

By: Mohamed Nasreldin



4th.

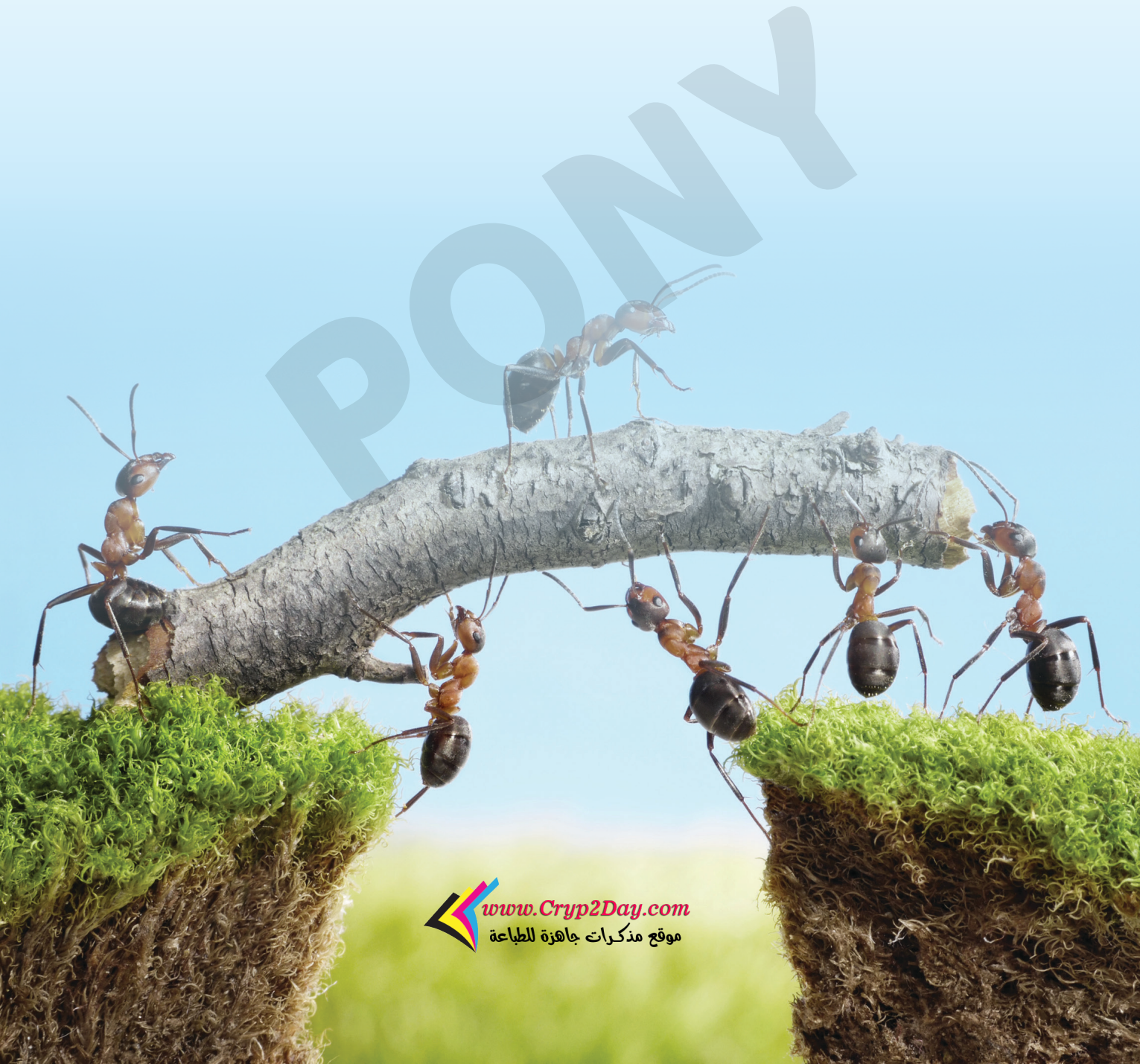
Primary

First Term

2022

Theme 1 Number Sense and Operations

Unit 1 Place Value



Concept 1.1 Reinforcing Place Value

Lesson 1

Digit, Numeral and Number

Lesson Objectives

At the end of this lesson, the student will be able to:

- Explain the difference between Digit, Numeral and Number.
- Discuss how the Place Value of a number can change.

Digit

it is a **single symbol** used to make numerals. Digits are **limited**, starting from the digit **0** and ending with the digit **9** (Ten digits: 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9).

Number

It is an **amount** related to the numeral and consists of one or more digits. The numbers are unlimited and **endless**.

Numeral

It is a **symbol** or **name** that stands for a **number**. Examples: 3, 49 and twelve are all numerals.

• **The following table shows examples of Digits, Numbers and Numerals:**

	Digit	Number	Numeral
7	✓	✓	✓
25		✓	✓
Five			✓
3	✓	✓	✓
256		✓	✓
Seventy three			✓

So, – The number is an idea, the numeral is how we write it.
– All digits are numbers (a 1-digit number), not all numbers are digits.
– All digits and numbers can be called numerals.

1 Write each number in the appropriate column. (Some numbers may belong to more than one column).

		Digit	Number	Numeral
a	369	.....	.....	.....
b	24	.....	.....	.....
c	9	.....	.....	.....
d	Forty six	.....	.....	.....
e	2 000	.....	.....	.....
f	620 336	.....	.....	.....
g	Eight	.....	.....	.....
h	7	.....	.....	.....
i	88	.....	.....	.....
j	0	.....	.....	.....
k	Three hundred seventeen	.....	.....	.....
l	Ninety	.....	.....	.....

Remember that:

The Smallest:

1-Digit Number	2-Digit Number	3-Digit Number	4-Digit Number	5-Digit Number	6-Digit Number
0	10	100	1 000	10 000	100 000

The Greatest:

1-Digit Number	2-Digit Number	3-Digit Number	4-Digit Number	5-Digit Number	6-Digit Number
9	99	999	9 999	99 999	999 999

The Place Value

- **In the following number: 372 865**

Thousands			Ones		
Hundreds	Tens	Ones	Hundreds	Tens	Ones
3	7	2	8	6	5

	Hundred-thousands	Ten-thousands	Thousands	Hundreds	Tens	Ones
The Place-value:	3	7	2	8	6	5
The Value:	300 000	70 000	2 000	800	60	5

2 **Write the greatest and the smallest number that can be formed from the digits (5, 7, 9, 0 and 4).**

– The **greatest** number: ..... .

– The smallest number: ..... .

3 **Write the Place value of the digit (3) in each of the following:**

a 545 22**3** : ..... .

b 42**3** 500 : ..... .

c 12 045 : ..... .

d 2**3** 466 : ..... .

e 25 124 : ..... .

4 **Circle the appropriate symbol to compare numbers:**

	The First Number	Comparison Symbol	The Second Number
a	**54 336**	< = >	45 336
b	**900 900**	< = >	99 000
c	**56 002**	< = >	50 602
d	**4 500**	< = >	4 500

Lesson 2

Really Big Numbers

Lesson Objectives

At the end of this lesson, the student will be able to:

- Recognize all Place Values of integers up to one billions.
- Explain how the value of a number changes based on its place within the number.

We know that:

– The **largest 6-digit number** is 999999

– **It is read as:** Nine hundred ninety-nine thousand, nine hundred ninety-nine.

We can find the number that comes just after it by adding the number "1", as follows:

	Numerical period			Numerical period		
Millions	Thousands			Ones		
	Hundreds	Tens	Ones	Hundreds	Tens	Ones
	9	9	9	9	9	9
						1
1	0	0	0	0	0	0

– The **resulting number** is 1000,000 and is read as **"One million"**.

So, We know that there is a numerical period called Millions, followed by another numerical period called Billions, as follows:

Numerical period	Numerical period			Numerical period			Numerical period		
Billions (Milliards)	Millions			Thousands			Ones		
One	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones

Example (1):

Use the following Place Value table to read the shown number:

Billions (Milliards)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		3	5	8	9	1	4	5	5
	35 Millions			891 Thousands			455		

– The previous number is read from left to right so that each number is followed by the name of the period :
Thirty-five **million**, eight hundred ninety-one **thousand**, four hundred fifty-five.

Example (2):

Use the following Place Value table to read the shown number:

Billions (Milliards)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
	8	1	5	5	2	0	0	2	1
	815 Millions			520 Thousands			21		

– The previous number is read as:
Eight hundred fifteen **million**, five hundred twenty **thousand**, twenty one.

Example (3):

Use the following Place Value table to read the shown number:

Billions (Milliards)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
3	9	9	0	7	0	2	5	7	0
3 Billions	990 Millions			702 Thousands			570		

– The previous number is read as:
Three **billion**, nine hundred ninety **million**, seven hundred two **thousand**, five hundred seventy.

1 Use the following Place Value table to read the shown number:

a

Billions (Milliards)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		2	7	2	5	4	9	8	5
.....	.....			.....			.....		

– The previous number is read as: .....

.....

b

Billions (Milliards)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
1	3	9	0	4	0	2	6	5	0
.....	.....			.....			.....		

– The previous number is read as: .....

.....

2 Write the following numbers: (In Standard Form):

a 45 Millions + 120 Thousands + 123 = ...

b 259 Millions + 24 Thousands = ...

c 275 Millions + 299 = ...

d 9 Billions + 109 Millions + 56 Thousands + 2 = ...

e 3 Billions + 215 Thousands + 28 = ...

3 Complete the following:

a 9 445 325 = ... Millions + ... Thousands + ...

b 925 023 007 = ... Millions + ... Thousands + ...

c 24 000 305 = ... Millions + ... Thousands + ...

d 6 025 007 000 = ... Billions + ... Millions + ...
Thousands + ...

e 8 029 000 028 = ... Billions + ... Millions + ...
Thousands + ...

4 In each of the following numbers, find the Place Value of the digit 7:

a In the number 35 785 692, the digit 7 is in ..... place.

b In the number 2 522 573, the digit 7 is in ..... place.

c In the number 7 325 864 125, the digit 7 is in ..... place.

d In the number 125 000 347, the digit 7 is in ..... place.

e In the number 24 000 710, the digit 7 is in ..... place.

f In the number 2 700 200 300, the digit 7 is in ..... place.

5 Underline the digit in the Ten-millions place:

a 2 587 924 388.

b 25 348 975.

c 962 525 252.

6 Underline the digit in the Thousands place:

a 345 582 622.

b 9 909 909.

c 253 332.

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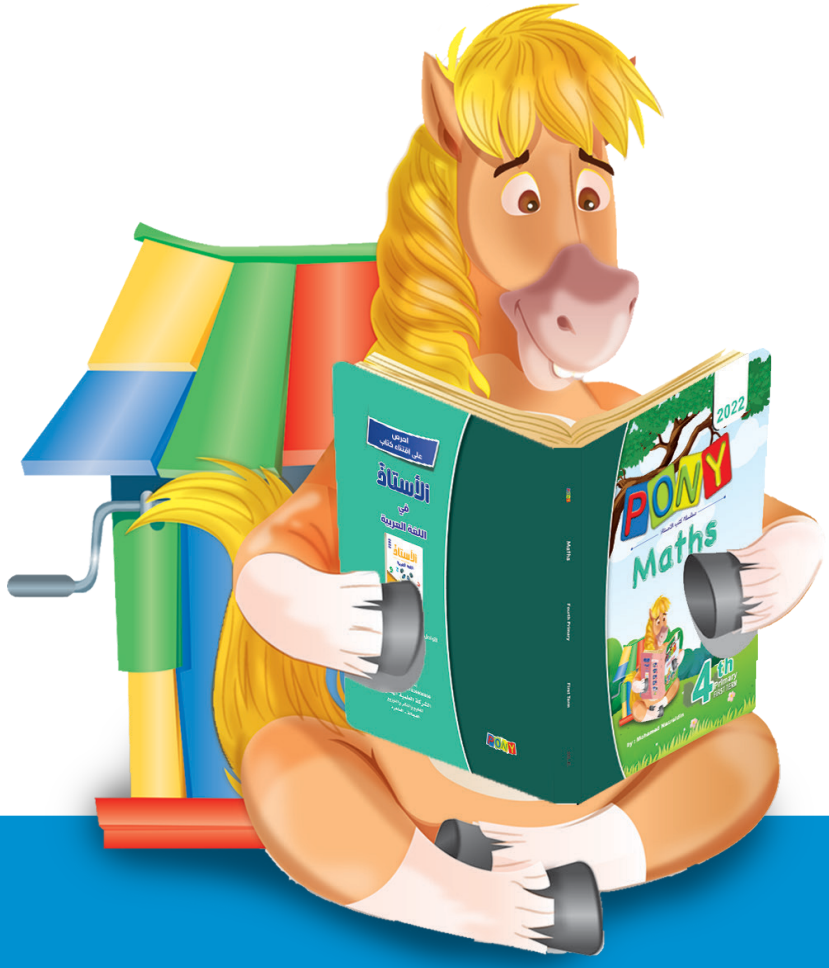
Exercises Book



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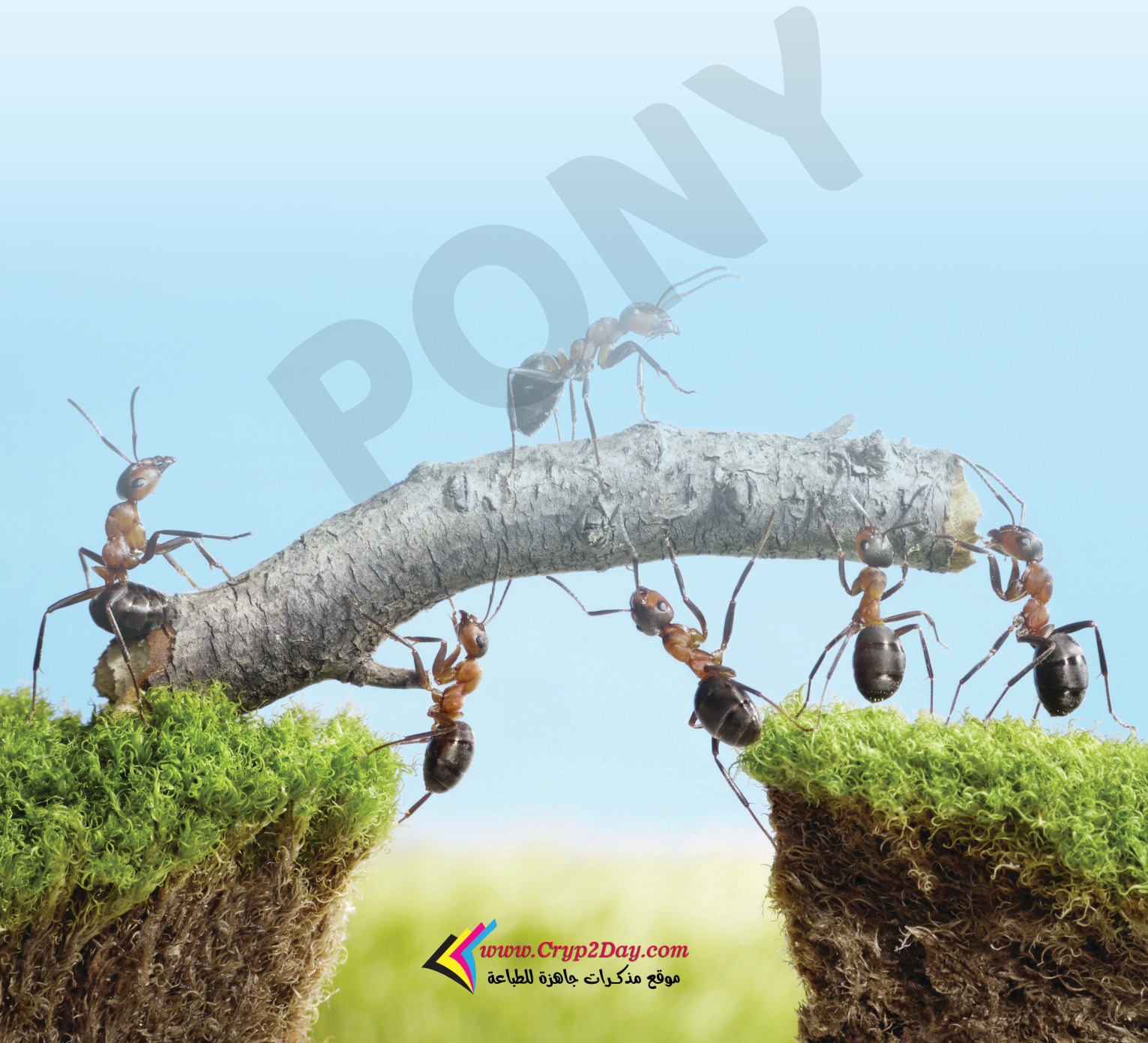

Concept 1.1 Reinforcing Place Value

Lesson 1&2

Digit, Numeral, Number/ Really Big Numbers

1 Complete the following table by placing a tick (✓) as shown in the example.

		Digit	Number	Numeral
Ex.	25		✓	✓
a	8			
b	125			
c	Eight			
d	Two hundred fifteen			
e	3			
f	45			
g	200 + 5			

2 Use the following numbers to make the largest and smallest possible number.

a (6, 8, 7, 2, 9) The largest number is: ..... .

The smallest number is: ..... .

b (2, 0, 8, 3, 4) The largest number is: ..... .

The smallest number is: ..... .

c (5, 1, 9, 3, 4) The largest number is: ..... .

The smallest number is: ..... .

(d) (8, 0, 2, 7, 5) The largest number is: ..... .

The smallest number is: ..... .

3 Complete the following table: (write the place value and the value of the number 8 in each number):

	The number	The place value	The value
(a)	422 485	.....	.....
(b)	38 250	.....	.....
(c)	83 115	.....	.....
(d)	700 810	.....	.....
(e)	415 128	.....	.....
(f)	820 200	.....	.....
(g)	210 682	.....	.....

4 Complete using: (< , = or >):

(a) 452 252 ..... 542 252 (b) 25 225 ..... 25 252

(c) 60 606 ..... 600 060 (d) 10 000 ..... 9 999

(e) 20 850 ..... 20 850 (f) 900 900 ..... 99 999

5 Use the following place value table to read the numbers shown:

(a)

Billions (Millions)			Millions			Thousands			Ones		
Ones			Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
					8	1	0	4	2	8	8
.....			.....			.....			.....		

– The previous number is read as: .....

.....

b

Billions (Millions)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		4	3	1	8	0	0	0	5
.....	.....			.....			.....		

– The previous number is read as: .....

.....

c

Billions (Millions)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
	5	1	8	1	2	0	2	0	8
.....	.....			.....			.....		

– The previous number is read as: .....

.....

d

Billions (Millions)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
5	0	0	2	4	0	3	7	5	0
.....	.....			.....			.....		

– The previous number is read as: .....

.....

e

Billions (Millions)	Millions			Thousands			Ones		
Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
7	3	6	5	4	2	9	9	6	8
.....	.....			.....			.....		

– The previous number is read as: .....

.....

6 Write the following numbers in numbers:

a 25 millions + 250 thousands + 200 = ...

b 120 millions + 25 thousands + 12 = ...

c 300 millions + 5 thousands + 3 = ...

d 600 millions + 200 thousands + 3 = ...

e 5 billions + 6 millions + 4 thousands + 4 = ...

f 9 billions + 25 millions + 125 thousands + 225 = ...

7 Complete the following:

a 254 456 = ... billion + ... million + ... thousands + ...

b 7 024 258 = ... billion + ... million + ... thousands + ...

c 14 105 = ... billion + ... million + ... thousands + ...

d 9 005 002 = ... billion + ... million + ... thousands + ...

e 23 015 = ... billion + ... million + ... thousands + ...

f 7 000 021 = ... billion + ... million + ... thousands + ...

8 Complete the following table:

	The number	The place in which the digit 4 is located
a	227 102 2<u>4</u>5	.....
b	13 2<u>4</u>7 258	.....
c	<u>4</u> 127 578	.....
d	225 12<u>4</u>	.....
e	2 <u>4</u>15 220	.....
f	6 125 200 <u>4</u>82	.....
g	2<u>4</u>8 367 250	.....
h	<u>4</u> 000 000 525	.....
i	5 <u>4</u>00 300 200	.....
j	2<u>4</u> 100 000	.....

9 Circle the digit in the place shown:

	The number	The place in which the digit is located
a	528 745 432	Ones
b	789 654 026	Hundreds
c	427 167 523	Thousands
d	210 347 163	Millions
e	793 400 063	Ten thousands
f	7 463 814 325	Billions
g	9 521 005 136	Hundred millions
h	8 852 963 852	snoillim neT
i	520 753 159	sdnasuoht derdnuH
j	8 201 093	sneT

10 Complete all of the following:

a The largest 5-digit number is ..... .

b The smallest 4-digit number is ..... .

c The largest 6 - different - digit number is ..... .

d The smallest 6- different - digit number is ..... .

e The value of the digit 6 in the number 126 251 is ..... .

f The value of the digit 3 in the number 32 105 is ..... .

g The place value of the digit 0 in the number 120 213 is ..... .

h The place value of the digit 4 in the number 10 214 is ..... .

i The largest number that can be formed from numbers (5, 6, 3, 8, 2) is ..... .

j The smallest number that can be formed from numbers (5, 0, 7, 3, 1) is ..... .

k The largest 5-digit number that can be formed from the digits (3, 7, 2) is ..... .

l The smallest 6-digit number that can be formed from the digits (6, 8, 4) is ..... .

m 450 millions + 50 thousands = ...

n 25 millions + 20 = ...

o 40 002 200 = ... millions + ... thousands + ...

p 7 458 115 251 = ... billions + ... million + ... thousand + ...

q The number 77 002 205 is read as .....

..... .

r The number " Three hundred five million, fourteen thousand , seven" is written as .....

..... .

s The digit 3 in the number 36 154 258 is in ..... place .

t The digit 8 in the number 45 185 252 is ..... place .

u The digit ..... in the number 7 335 102 562 is in the billions place.

v The digit ..... in the number 922 157 528 is in the hundred-millions place.

11 Choose the correct answer:

a ..... is an amount related to the numerical form and consists of one or more digit. (number or number or numerical form)

b ..... is writing the number in any way.
(number or number or numerical form)

c ..... is a digit. (15 or 9 or eight)

d ..... is a number. (two hundred fifty or 5 + 200 or 29)

e The largest 4-digit number is ..... .

(9 999 or 9 000 or 1 000)

f The smallest 5-digit number is ..... .

(99 999 or 10 000 or 10 234)

g The largest 5-diffrent -digit number is ..... .

(765 98 or 234 10 or 10,000)

h The smallest 4 different -digit number is ..... .

(9 876 or 1 023 or 1000)

i The value of the digit 7 in the number 125 327 is ..... .

(7 or 70 or 700)

j The value of the digit 0 in the number 87 105 is ..... .

(0 or 10 or 100)

k The place value of the digit 8 in the number 15 382 is ..... .

(ones or tens or hundreds)

l The place value of the digit 7 in the number 725 145 is .....

. (thousands or tens of thousands or hundreds of thousands)

m The largest number that can be formed from the digits (8, 6, 1, 7, 9) is ..... . (97 168 or 16 789 or 89 761)

n The smallest number that can be formed from digits (0, 8, 1, 4, 5) is ..... . (85 510 or 10 458 or 85 410)

o The largest 6-digit number that can be formed from the digits (9, 1, 7) is ..... . (971 971 or 999 917 or 111179)

p The smallest 5-digit number that can be formed from the digits (8, 2, 6) is ..... . (22 268 or 88862 or 20 068)

Worksheet 1

Up to Lesson (1&2)

1 Complete the following:

a The number that represents the numerical formula: "three hundred and seventeen" is ..... .

b The value of the number 3 in the number 234 542 124 is ..... .

c The largest 6-digit number is ..... .

d The billion is the largest number consisting of ..... digits.

e All digits are .....and not all numbers are ..... .

2 Choose the correct answer from the brackets:

a "8" is ..... . (a digit only or a digit and a number only or a digit and a number and a numerical form)

b The place value of the number 0 in the number 30 745 is ..... . (thousands or tens of thousands or zero)

c The smallest 5- different – digits number is ..... . (10 000 or 90 000 or 10 234)

d The largest number that can be formed from numbers (2, 7, 1, 0, 3) is ..... . (70 321 or 73 210 or 10 237)

e 500 + 0 + 25 = ... (500 025 or 5 025 or 525)

3 Complete using < , = or >:

a 45 250 ..... 54 205

b 200 005 ..... 25 000

c 80 808 ..... 808 080

d One hundred thousand 100 000

4 Arrange the following number in an ascending order:

(100 100 , 99 999 , 990 000 , 10 000)

– The largest 5-digit number is ..... , ... , ... , ...

5 Arrange the following number in an ascending order:

a 85 millions + 250 thousands + 210 = ...

b 2 billions + 30 thousands + 20 = ...

c 444 365 245 = ... Millions + ... thousands + ...

d 50 000 360 = ... Millions + ... thousands + ...